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THE ROOKS AND ROOKERIES OF LONDON.

BY ALFRED NEWTON, M.A., F.R.S.

DR. HAMILTON'S account of "The Rooks and Rookeries of London" (*suprà* pp. 193—199) has lately done me so much good service that I feel bound to tender my thanks to its author. At the same time I believe that he has in a few details been led astray, and, as the subject is (or ought to be) interesting to many readers of this Magazine, it seems to me as well that these errors (as they appear to be) should be noticed. There are none, however, which are more than trivial, and I may perhaps incur the charge of being hypercritical in pointing them out, though to the Londoners of future generations, when the Rook is exterminated, every particular concerning its former abode within their precincts will doubtless be cherished. Some years ago I appealed to the readers of the two weekly newspapers which often contain matter of value to the naturalist for information on the subject of London Rooks. To my great disappointment little or none was supplied. It has often been remarked that Londoners take no pride in their immense town, but I had hoped that some of the many ornithologists who constantly traverse its thoroughfares might, with satisfaction, have given a few particulars of the very considerable number (allowing for circumstances) of Rookeries existing within its limits—Rookeries which have for a long time excited the attention of no ordinary men—witness Oliver Goldsmith, Horace Walpole, and Charles Lamb.

Dr. Hamilton's paper therefore afforded me great satisfaction, as containing the results of the continuous observations of many

years, and I am sure that the great interest he takes in London Rooks will induce him to pardon me for these my remarks. To come to details, it might be inferred from his statement that the Rookery in the gardens of the old Green-Park Lodge ceased to exist soon after the death of the Princess Amelia. This inference would be erroneous. That lady died in 1810, but the house was for a long time after inhabited by Lady William Gordon, the widow of a Deputy-Ranger of the Park. I well remember it, and the high wall which, surrounding its garden, rendered the adjoining part of Piccadilly a most inconvenient strait. The house, I believe, had long been doomed, but in deference to its tenant its destruction was delayed. In 1841 Lady William died, and I think (though of this I am not quite sure) that it was immediately pulled down. Still the enclosed grounds and the nuisance of the high wall remained. There was the usual amount of "writing to 'The Times,'" and the usual number of questions in the House of Commons on the subject. At last public opinion was fully made up, and in the eventful session of 1844 a Bill, known as the 'Piccadilly Improvements Bill,' was passed through Parliament by the Government, the First Commissioner of Woods and Forests being then (if I am not mistaken) Lord Lincoln, afterwards Duke of Newcastle. This Bill, "to widen and improve Piccadilly," received the Royal Assent on the 9th August in that year, and thus became 'Act 7 and 8 Vict. cap. 88.' One of its principal objects was declared to be the making of "the said street called *Piccadilly* from *Bolton Street* to *Park Lane* of an uniform width of Seventy Feet or thereabouts." Its effect was the pulling down of the dead wall and the taking of a considerable slice off the garden of the former Ranger's Lodge, while the rest of the garden was thrown into the Park. The line of plane-trees which still exists along the south side of the foot-pavement was preserved, at the instance, I remember then to have heard, of the late Sir Robert Peel;* but a large number of the trees in the heretofore private grounds were felled, and among them some or all of those which formed the Rookery. Whither the Rooks which had inhabited these trees went, or whether they immediately took their departure I know not; but Dr. Hamilton's supposition that they then established the Rookery in Wharncliffe Gardens can hardly be correct. I do not

* Mr. Wheatley, however, ascribes ('Round about Piccadilly,' p. 257) the suggestion of keeping the trees to the late Sir Charles Barry.

like to trust my own memory on this point, though I think I have reason to remember the nests in these gardens at a prior date, but Yarrell's evidence on the point is conclusive. In July, 1839, he spoke (Brit. Birds, ed. 1, vol. ii., p. 92) unmistakably of this Rookery being already long established.*

The witness cited by Dr. Hamilton is doubtless right in saying that he remembered no Rooks or Rooks' nests in the Temple Gardens for forty or fifty years. It is true that the 'History of Epsom,' published in 1825 anonymously, but believed (as I learn through Mr. Harting's courtesy) to have been written by Mr. Pownall and the late Mr. Everest, speaks (p. 130) of it as then existing; but Rennie, only six years later ('Architecture of Birds,' p. 220), wrote of it as being "long abandoned"; and this is a point on which Rennie could hardly have been mistaken. The strange story of the establishment of this Rookery by Sir William Northey will, I hope, in the course of time be confirmed by further evidence. I can hardly accept it at present, and yet I should like to believe it.

With regard to the Rook's nest at the corner of Wood Street, Cheapside, I have to remark that had Dr. Hamilton referred to the later editions of Yarrell's 'British Birds,' published in 1845 and 1856 (vol. ii., p. 92 and p. 96), he would have seen that the statement originally published in 1839 was modified according to experience, and moreover that Mr. Harting's authority for their being two nests in the tree in 1845 was Yarrell himself, who also first recorded the nest begun on the vane of St. Olave's, Crutched Friars, in 1838 ('British Birds,' ed. 1, vol. ii., p. 92).

It may be here worth while copying a passage from the somewhat scarce and now little read 'Ornithologia' of James Jennings (ed. 2, p. 75):—

"There is a Rookery in the Tower, and another was, till lately, in Carlton Palace Gardens; but the trees having been cut down to make room for the improvements going on there, the Rooks have removed this spring (1827) to some trees behind the houses in New Street, Spring Gardens.

* His words are:—"In the gardens of two noblemen in Curzon Street, May Fair, a considerable number of Rooks have built for many years." Now anyone who knew London at that time must be aware that these two gardens were those of Chesterfield House, whose Rookery has only ceased within the last few years to exist (could not Dr. Hamilton give the exact date of its extinction?), and of Wharncliffe House, whose Rookery fortunately still remains.

There was also, for many years, a Rookery in the trees in the churchyard of St. Dunstan's in the East, a short distance from the Tower; the Rooks for some years past deserted that spot, owing, it is believed, to the fire that occurred a few years ago at the old Custom House. But the present spring, 1827, they have begun again to build on those trees, which are not elm, but a species of plane. There was also, formerly, a Rookery on some large elm trees in the College Garden behind the Ecclesiastical Court in Doctors' Commons, a curious anecdote concerning which has been recorded."

Here follows a reference to the story given by Hone, and already quoted by Dr. Hamilton.

I may perhaps be also excused for quoting a paragraph from the 'Field Naturalist' for 1833 (vol. i., pp. 88, 89), wherein is contained the following extract from a child's book: *—

"Some years since a small colony of Rooks, probably a detachment from that which had long occupied the trees in St. Dunstan's churchyard, took possession of some lofty elm trees on the parade in the Tower, which they soon filled with their nests; and the shortness of accommodation there, perhaps, led some of them to occupy the crowns, which are fixed on the top of the vanes at each turret of the White Tower. The remains of the nests may still be seen filling these singular stations."

Finally, while on the subject of Rooks, I may be allowed to say that since the publication of my history of the species in the revised edition of Yarrell's 'British Birds,' I have been favoured by Lady Stuart-Menteth with a copy of the pamphlet 'Farmers *versus* Rooks,' mentioned by Yarrell, which, notwithstanding search made in many quarters, I had been unable to see. It is in the form of a report of a trial "supposed to have taken place in Ayrshire, before a committee of gentlemen, appointed by the Agricultural Society of that county, to consider the supposed damage done by Rooks to their tenantry," and was printed at Ayr in 1838. There is now no novelty in the statements adduced on either side, whatever there may have been then; but the author, Mr. (subsequently Sir James) Stuart Menteath, skilfully marshalled a long array of witnesses on behalf of his clients, though the jury returned a verdict of guilty.

+ 'Sketches of Birds,' &c. By S. Roper. 12mo. Harvey & Darton, London. 1832.

NOTES FROM AN ARCTIC JOURNAL.

By H. W. Feilden, F.G.S., C.M.Z.S.

(Continued from p. 418.)

Cape Victoria is a fine headland of Silurian limestone, some 1000 feet high, resting on a base of conglomerate. I was fortunate enough during the few minutes we were on shore to extract a few fossils, one of them being an example of *Maclurea magna*,* which has proved extremely useful in fixing the geological age of these rocks. The flora on this hard limestone is much scantier than on the granitoid rocks, which disintegrate freely and form patches or pockets of soil. I only noticed a single species of *Salix* and *Saxifraga oppositifolia* growing. There again on the beach just above the ice-foot we found the lichen-covered remains of native encampments, with several fox-traps, and fragments of animals' bones. At mid-day there was a fall of snow, which, freezing as it reached the water, converted the pools and lanes between the floes into a tenacious sludge, through which it was almost impossible to move a ship. At this juncture our vessel narrowly escaped being pushed on shore by the ice; but at flood-tide the pack eased somewhat, and enabled a course to be made to Franklin Pierce Bay, which we reached on the 9th August, where we obtained a certain amount of protection from the ice, in the vicinity of Norman Lockyer Island.

Landing at Cape Harrison, the western extremity of the bay, we found a series of old sea-margins rising in terraces to a height of about 300 feet, or to the base of the cliffs, which are composed of a grey limestone similar to that of Cape Victoria. These terraces are a very marked natural feature of most of the bays and inlets of Smith Sound, and show that oscillations in level are constantly progressing in that part of the globe. At some points summer torrent-courses had cut away the terraces, or else at these particular spots the banking up had not taken place. I was very much surprised to find that at these places where the basement rock was exposed it exhibited well marked ice-scratchings, and as there was no appearance of any glacier having existed at the spot I was at a loss to account for the phenomenon, until subsequently we became better acquainted with the power of grounded floe-ice

* Etheridge, 'Quarterly Journal Geol. Soc.,' 1878, p. 605.

to make the scratches there observed on the rock. On one of the terraces, at an elevation of a hundred feet, was a well-marked native encampment, with lichen-covered friable bones strewed about. As a rule the Eskimo do not pitch their tents far from the sea-level, and it is therefore not improbable that the land may have risen to the present altitude of the encampment since the date of pitching the tent. The invariable method of the Eskimo is to keep down the sides of their skin-tents by placing stones on the edges. When camp is moved the tent is dragged from underneath them, and the circle of stones remains in these regions a very enduring monument of human labour.

There were a considerable number of Walrus in the bay, generally to be seen in the pools of water over a shoal, or else resting on the floe-ice in the same neighbourhood. On one occasion I crept to within twenty yards of a group of three that were resting on the ice. They were lazy, indolent brutes, basking in the sun, and took little heed of my approach. Every now and again one or other would open its sleepy eyes and rub its neighbour's coat; whether that movement was intended as a signal of alarm, or as a good-natured attempt to rid its friend of the parasite, *Hematopinus trichechi*, which infests the skins of these animals, most especially between the toes of the flippers, I cannot say, but they allowed a boat to get near enough to them to discharge a harpoon gun. The largest of the three was struck, and immediately dived, but came to the surface as soon as it felt a purchase on the line; it then endeavoured to attack the boat, but was soon killed with rifle-bullets. The next day a very large old male was captured by the same means. The length of this animal along the curve of the back from the tip of the nose to the end of the hind flippers was twelve feet six inches; girth before fore-arm eleven feet six inches, immediately behind the fore-arm eleven feet; its tusks measured eighteen and a half inches to the point of insertion in the bone, and we estimated its entire weight at a ton. We ate the liver which was quite palatable, but the flesh, though well tasted, was tough and black. Its stomach contained a large amount of green fluid oil, in which small particles of *Ulva latissima* could be detected, and minute fragments of the shells of *Mya*.

A visit to Norman Lockyer Island showed that a large colony of Eskimo must have once inhabited it, for hundreds of walrus-skulls lay around the deserted "igloos," now moss-covered, and

only recognisable by the brighter green that marked the sites. A single rib lying near the beach showed that at some time whales must have penetrated Smith Sound to this point. At the period of our visit very little snow was lying on Norman Lockyer Island; its summit, some 400 feet high, showed a great amount of glacial scratchings. The highest point is its southern face, and from there the land slopes gradually to the sea, the dip of the rock being from south to north. The lines of old sea-margin are very conspicuously marked on the island by a series of terraces extending across its face. These terraces are formed of angular, weathered fragments of limestone, containing a few fossils, which also appear in the parent rock. I brought away from there *Favosites gothlandicus* and *F. alveolaris*, well-known Upper Silurian forms. The fact of the terraces on Norman Lockyer Island being formed of angular fragments at once attracted our attention, for it showed that they were not sea-beaches in the ordinary sense of the term, wherein the component pebbles are found more or less rounded. My attention was naturally directed to the ice-foot, which clings to the shore, for a solution of the problem, and I am convinced that these terraces are formed by the ice-foot banking up the material as it falls from the cliffs above. A long series of subsequent observations confirmed me in the following views:—

"The typical aspect of the ice-foot in Smith Sound is that of a terrace of fifty to a hundred yards in width, stretching from the base of the talus to the water's edge, its width varying with the slope of the sea-bottom, decreasing in direct proportion to the increase of the land slope.

"The first action of the solar rays is exerted on the snow forming the uppermost layer of the ice-foot which lies nearest to and upon the talus, the dark surfaces of which rapidly absorb the heat of the sun. A deep trench is formed in the snow at the junction, which becomes filled with water, partly derived from the melted snow of the ice-foot and partly from that pouring down from the uplands; these united streams in a few hours eat deep channels across the ice-foot and discharge themselves into the sea through transverse gullies. At low water the ditches and gullies are drained, whilst at high water the sea pours in through these apertures with considerable violence, and sweeping right and left, traverses the ditch, eats away the base of the talus, and re-assorts the material."*

Our enforced delay gave us several opportunities for dredging, but only in shallow water, not more than twenty fathoms. The fishes

* Quarterly Journal Geol. Soc., 1878, p. 565.

captured were *Icelus hamatus* (Kröyer), *Cyclopterus spinosus* (Müll.), *Liparis Fabricii* (Kröyer), *Triglops pingellii* (Reinh.), *Gymnelis viridis* (Fabr.), and *Gadus Fabricii* (Rich). The Echinodermata were more abundant, and a crinoid, *Antedon Eschrichtii* (Müller), was a conspicuously beautiful object, clinging to the meshes of the trawl by its dorsal cirri.

On the 12th August a favourable breeze opened a water-way along the shore, and our ships managed to round Cape Hawks, and to find shelter amongst the floes in Dobbin Bay. Our progress northwards from this point until rounding Cape Frazer, the meeting-place of the Polar and Baffin Bay tides, was distressingly tedious and harassing. As a rule the atmosphere was clear, and we were still enjoying the midnight sun, but the sameness of the scenery became monotonous. The coast-line is a series of headlands rising to a height of a thousand or twelve hundred feet, with abrupt mural precipices, a steep talus stretching, as a rule, about half way up the cliffs from the shore. The indentations between the headlands are valleys debouching abruptly on the sea. In nearly every valley the old lines of sea-margins were distinctly marked by series of terraces, showing the continuous elevation of the land. To seaward the sound was packed with floe-ice moving north and south with the tides and winds, but with a general set to the southward. At the changes of the tides small pools of water would open, but hardly ever a continuous water-way of a quarter of a mile. Our leader was always on the watch to take advantage of the slightest change in the ice; but on many occasions part of our hard-earned progress had to be relinquished, and a timely retreat from between two closing floes saved the ship from destruction. The bumping of the ship charging against the ice, the creaking of her timbers when squeezed or nipped, the incessant quickly-given words of command, and the ever-present chance of shipwreck, with the difficulty of getting sleep, were very trying to the nerves, and it was with a feeling of thankfulness and relief that, owing to the ships at times being closely hemmed in by the ice, we were able to have a run on shore.

Washington Irving Island, at the entrance of Dobbin Bay, was visited, and afforded a collection of Silurian fossils, but all corals. In one strata the rock appeared to be entirely composed of *Favosites gothlandicus* and *F. alveolaris*, the former species greatly preponderating.

To make clear to my readers the extraordinary difference of temperature between the sea of Palæozoic times and that now encircling the North Pole, I cannot do better than quote a few lines from Mr. Etheridge's exhaustive report on the Palæontological collections of the Expedition :—

"These undoubted reef-forming corals of the Silurian epoch were just as much inhabitants of warm water in southern latitudes at that period as are the Sclerodermata of to-day in the Indo-Pacific and Atlantic Oceans; and as we know of no compound coral that will exist at a lower temperature than 68° F., and as the surface-waters under the equator in the Pacific have a temperature of 85° F., and in the Atlantic 83°, it seems clear that the range from 68° to 85° F. is best adapted to and not too high for the growth of the reef-making species. We may fairly assume that the temperature of the Polar waters during Palæozoic times was as high as that of the Indo-Pacific and Atlantic now, where coral-reefs abound. We are not justified in supposing that the laws regulating oceanic life were very different then from those now existing (in the same groups) under the equator or between the tropics. These corals were forms of life which must have been tropical in habits and requirements."*

At Cape Hilgard we had twenty-four hours on shore, and as the Silurian rocks of that locality are especially rich in fossils I made a very interesting collection. Birds were not numerous; during the day I observed only one Glaucous Gull and three Turnstones; one of these was shot, and found to have its stomach filled with the seeds of *Draba alpina*. Others of our party killed six Ptarmigan, *Lagopus rupestris*.

On the 16th August the ships were firmly beset close to Cape Hayes. Landing with Captain Nares and Markham, we came across the fresh footprints of a bear on the ice-foot. Vegetation was very scanty; the yellow poppy, arctic willow, with two or three species of saxifrage were all the plants we observed. A butterfly, *Argynnis*, was captured. It is difficult to imagine how Lepidoptera can exist in a climate which during the months of June, July and August has a mean temperature of less than three degrees above freezing and an annual mean of four degrees below zero, with falls of snow during the warmest months of the year. About a mile south of Cape Hayes a pair of Ivory Gulls were nesting in the precipitous limestone cliff. We were attracted to the spot by their shrill cries, and the movements of one of the pair

* Quarterly Journal Geol. Soc., 1878, p. 578.

who came swooping down at us, passing within twenty or thirty feet of our heads. The other bird sat on the nest, which was placed on an inaccessible ledge. Dovekies were tolerably abundant, and were nesting in the cliffs, flying down to the pools between the floes for food, which they took to their young. I noticed that they seldom missed capturing a fish, *Gadus Fabricii*, at the first dive; this they held in their bills by the head as they flew back to the cliffs, but they did not carry more than one fish at a time.

On the 19th August the ships got to the northward of Cape Frazer, and on the evening of the same day Markham and I landed on Cape John Barrow; he ascended the heights to obtain a view of the offing, whilst I devoted the time to geological enquiry. The strata I examined at Cape John Barrow were nearly horizontal, with a slight dip to the N.N.W., true. The limestone split into slates, which were highly fossiliferous; but the fossils were very badly preserved, though specimens of *Orthoceras*, *Strophomena*, and *Rhynchonella* might be detected. Mr. Etheridge,* in referring to these specimens has fallen into a slight error—probably my own in want of care in labelling—by supposing these specimens obtained at Cape John Barrow and Hayes Point were drifted rocks. This was not the case; they were obtained *in situ*, and their stratigraphical position ascertained.

To the northward of Cape Barrow the ice was not so closely packed as we had hitherto experienced in Smith Sound, and on the 22nd August we entered into a long expanse of open water, which enabled us to reach without difficulty as far north as latitude 81°. There, in the broad extension of the channel called Hall Basin, we were again stopped by the ice, and took shelter at the mouth of Bessels Bay, waiting for a lead. The sixty miles of comparatively open water which we passed through between Cape Collinson and Hall Basin was almost devoid of animal life. About a dozen Black Guillemots were seen, and a single Seal, but no Gull, Walrus, or Narwhal.

Bessels Bay is a fiord cut by ice-action out of the limestone; its perpendicular sides rise to a height of over a thousand feet at the entrance. Further inland numerous glaciers pour down its sides, the overflow of the *mer-de-glace* of Washington Land, which uniting in the fiord form one discharging glacier. Owing to the

* Quarterly Journ. Geol. Soc., 1878, p. 603.

small depth of water, the icebergs shed from it are comparatively small. We put the dredge over in front of the glacier, in a depth of seven fathoms and a half, with a bottom temperature of 28° F. The bottom consisted of rounded limestone pebbles dropped by the bergs. Very little living material was brought up; two examples of *Trochus umbilicalis*, and an *Astarte*, two annelids, and a star-fish being the result of the haul. Dovekies were nesting in the cliffs, and several Eider Ducks, one with a brood of downy young ones, were seen. I landed with Lieutenant Parr on the north side of Bessels Bay; the cliffs rise perpendicularly from the shore, but in some spots a talus stretches to a height of 300 feet; we scrambled up this, and looked out over Hall Basin. To the northward and towards Polaris Bay, the ice was tightly packed; but a lead showed to the westward in the direction of Lady Franklin Sound. A southerly wind blew strong and very cold, though the thermometer marked 27° F. We returned to the ship with a small collection of plants and fossils.

(To be continued.)

OCCASIONAL NOTES.

Weasel stealing Eggs.—A friend of mine, Mr. William Trousdale, on whose veracity I can implicitly rely, lately supplied me with the following anecdote:—During the time he occupied a farm at Ryton, in the North Riding, in the spring of a certain year, he had a hen sitting, and noticed that one of her eggs disappeared daily. He was quite unable to account for this, until one day he saw a Weasel come out of a cart-shed, where the hen was sitting, with an egg in front of him. He immediately gave chase, when the animal made for a hedge-bank some forty yards distant from the shed. My friend overtook it just as it was trying to get the egg into a hole, into which, on his near approach, the animal disappeared. My informant, who on taking up the egg saw the Weasel look out from its hiding-place, states that the egg was rolled along the ground in front of the animal, and he was surprised at the rapidity with which it moved.—Walter Stamper (Highfield, Oswaldkirk, York).

Starlings destroying Larks' Eggs.—In reply to the Editorial query (p. 427), I may state that I have no direct evidence to offer against the Starlings, so far as Larks' eggs are concerned; and in saying that the

disappearance of Sky Larks was "without doubt" caused by Starlings destroying their eggs, I was more guided by the opinion of others having better opportunities for observation than myself, than by my own convictions. From whatever cause it may be, it is certain that Sky Larks have almost entirely disappeared, not only in the parish of Troqueer (wrongly spelt last month), but everywhere within a circuit of about six miles from Dumfries—that is, in both the counties of Dumfriesshire and Kirkcudbrightshire, Dumfries being situated on the River Nith, which divides the two counties. In numerous other places is the same complaint heard. The causes that have thinned the flocks of other of our native birds do not operate in the case of the Lark. Birdcatchers do not take them in our locality to any appreciable extent, gamekeepers and farmers have no antipathy to them, reclamation of the wilder parts of the district does not seem to drive them off; and they are not specially the victims of any of the birds of prey, for Merlins are very rare with us; so that it is difficult to assign any reason for their great decrease, if the Starlings are not the authors of the mischief. The search for food leads the Starlings into the places frequented by Larks, and when there, from what I have seen of their evil propensities, I believe they will not hesitate to destroy every nest they fall in with. In several instances I have seen them breaking the eggs and tearing up the nests of House Sparrows which had built in ivy-covered trees, sheer malice apparently being the only incentive. I have also seen—and indeed this is a common complaint in the district—Starlings enter the pigeon-boxes and destroy the eggs of the Pigeons, and I have also seen them pull out the newly-hatched young birds and drop them to the ground, all the while chattering with glee, and seemingly taking a deal of pleasure in perpetrating these atrocities. It is very remarkable, and I am afraid more than a mere coincidence, that as the Starlings have increased and multiplied so the Larks have disappeared, and it is, I think, reasonable enough to connect the Starlings in some way with the absence of Larks. I observe Mr. R. Gray is of the same opinion, for in the 'Proceedings of the Natural History Society of Glasgow' (vol. i., part i., p. 13), he mentions that "Starlings have become destructive to the Sky Lark and other birds building on the ground, the nests of which are rifled of their contents, even when the eggs are newly hatched, as has been repeatedly observed by trustworthy observers."—Robert Service (Maxwelltown, N.B.).

[Were the scarcity or absence of Larks observable only at this particular season, it might be accounted for by the fact that Larks not only flock, but migrate southward at the approach of cold weather. Certain districts in North Britain might thus be entirely deserted by these birds in winter.—Ed.]

Snow Geese in Ireland.—Referring to the Editor's remarks (pp. 419—422) on the further appearance in Ireland of the Snow Goose, and to Mr. Howard Saunders' previous record of what has hitherto been considered the only occurrence of Snow Geese in the British Isles, I should like to bring under notice a previous appearance which has lately been made known to me, but which I believe has never before been recorded. The following are the facts of the case:—The birds alluded to were in the aviary of the thirteenth Earl of Derby at Knowsley, and at his death were sold by public auction by Mr. J. C. Stevens, in August, 1851, the purchaser being Mr. P. Castang, of Leadenhall Market. They are described in the Catalogue as follows:—"Lot 584. Two Snow Geese (*Anser hyperboreus*, Pallas; *Anser niveus*, Brisson; *Anas cœrulescens*, Linnæus.; *Anas nivalis*, Forster), N. America." Mr. Castang has kindly written me the following memorandum concerning them:—"I beg to say I purchased a pair of Snow Geese at the late Earl of Derby's sale at £5 the pair, and my old friend Mr. John Thompson afterwards joked me at giving so much, as he had purchased three of them at half-a-crown each while travelling in Ireland, out of a flock of common geese running on a green. I sold them to my valued customer, Mr. W. Domvile, of Santry House, Dublin." The Mr. John Thompson to whom he refers was the superintendent of Lord Derby's Menagerie; but, as he is not now living, I am unable to gather any further particulars as to locality, date, or what became of the third bird mentioned. As Cassin did not describe the species named after him until 1856 (Proc. Acad. Nat. Scien. Phil., 1856, p. 41), it is a matter of doubt to which of the three species the birds in question belonged. If Mr. Domvile has still the birds in his possession, he would no doubt be able to settle the point—one of great interest to ornithologists.—E. Bidwell (Richmond, S.W.)

[As twenty-seven years have elapsed since the sale of the Knowsley Menagerie, it is very unlikely that the birds in question are still living. Nevertheless, the skin of one or both may have been preserved; and if so, Mr. Domvile would confer a favour on ornithologists by forwarding a description of the plumage, with measurements of bill, wing, and tarsus, together with any particulars concerning their capture which he may have committed to memory or to writing.—Ed.]

Snow Geese in Ireland.—Since writing the remarks which appeared in the last number of 'The Zoologist' (pp. 419—422), I have received from Mr. Crampton, the owner of the bird still living at Belmullet, a note, in which he has furnished, at my suggestion, the measurements of the bill, wing, and tarsus. These measurements may be said to prove, I think conclusively, that the bird, as already surmised, is *Anser albatus*, Cassin. He says, "Bill, 2⅛ inches; wing, about 15 inches; tarsus, 3 inches." Thus it varies only to the extent of one-eighth of an inch in both bill and tarsus from the specimen in Mr. Saunders' collection, which was

procured in Wexford. It still remains an open question whether *albatus* is a good species, or, as Dr. Elliott Coues considers it (Key, N. Amer. Birds, p. 282), a variety distinguishable only by its size from the larger *Anser hyperboreus*.—J. E. Harting.

Tree Pipit in Ireland.—Referring to the Rev. C. W. Benson's note on the occurrence of the Tree Pipit in the County Dublin (p. 348), I may remark that about thirteen years ago, while birdsnesting near Raheny, on the north side of the same county, I found at the base of a furze-bush a nest with eggs which were quite new to me, although I was perfectly familiar with the birds and nests of that county. The bird in question on being disturbed perched in a hawthorn about forty yards off, near enough for me to see a pale yellowish breast which I did not recognise, and to hear a loud note which I had never heard before. The eggs were much redder than any I had seen, and on taking them home and comparing them with the figure of the Tree Pipit's egg in Laishley's 'British Birds' Eggs,' I made sure that they belonged to that species. A description of the bird afterwards left me no doubt on the subject. I preserved the eggs as amongst my rarest for a long time, and I believe I have one still in a cabinet in Dublin.—H. Chichester Hart (Glenalla, Ray, Letterkenny).

Spotted Crake in Suffolk.—During the second week in October, a Spotted Crake was killed at Leiston on a large piece of reed-land. A nest of this species was found at the same place in May, 1872, with the old bird just hatching. Since then (Sept. 18, 1873) an adult bird was shot there, but was too much mutilated to be worth preserving. On visiting Easton Broad the other day (Oct. 18) we found the surface dotted all over with wildfowl, by far the greater part consisting of Coots. There were besides several flocks of ducks (*A. boschas*), and a good many either Scaups or Pochards; but the day being very thick, we could not with certainty determine to which species they belonged. I have met with the Dartford Warbler several times lately among high furze-bushes on the heath between here and Iken.—G. T. Rope (Blaxhall, Suffolk).

A Hen swimming.—*Apropos* of the instance noticed by Mr. Kerry (p. 437), it may be remarked that the circumstance, although curious enough, is not unprecedented. The late Bishop Stanley, in his 'Familiar History of Birds,' mentions (p. 285) a hen in the possession of a clergyman which so far overcame her natural fear of water as to be in the constant habit of making a short cut from the churchyard (into which she with the rest of the poultry occasionally wandered) to the barn-yard, by regularly swimming across a pool, which was situated between it and the churchyard. The distance was almost thirty yards, and the part of the pool where she crossed was so near the end of it that the other fowls which came round arrived before her.—J. E. Harting.

Spotted Flycatcher nesting in Hyde Park.—A pair of Spotted Flycatchers, *Muscicapa grisola*, frequented the gardens of Hamilton Place this summer (1878), and from the male bird being constantly alone there can be no doubt they had a nest there. Another pair built a nest in the foot of an elm in the Ornamental Garden at the east end of the Serpentine, and hatched their young. I watched the parent birds constantly feeding them. Another pair built their nest in a tree a few yards from the broad walk leading to the Albert Memorial, Kensington Gardens.—Edward Hamilton (Portugal Street, Grosvenor Square).

Sabine's Gull at Scarborough.—On November 7th I had an immature specimen of Sabine's Gull brought in to be preserved. No mature specimen, so far as I am aware, has been obtained on this coast.—Alfred Roberts (Scarborough).

Death of Mr. T. W. Wonfor.—This gentleman, whose name has long been familiar to all classes of Brighton society, died at his residence, 38, Buckingham Place, Brighton, on Sunday, the 20th October last, in the fifty-first year of his age. His entry on a public career in Brighton was first made in connection with the Royal Literary and Scientific Institution, at the Albion Rooms. Shortly after the formation of the Brighton and Sussex Natural History Society, in 1853, Mr. Wonfor was appointed an Honorary Secretary, a post he continued to fill to the date of his death, and the duties of which he discharged with exceptional ability and energy. At the meetings of this Society, from which he was rarely absent, his extensive knowledge and cheerful manner rendered him a universal favourite, and his death leaves a vacancy which it will be difficult to supply. The papers communicated by Mr. Wonfor to the 'Proceedings of the Brighton and Sussex Natural History Society,' chiefly on subjects connected with Microscopy, are numerous, and the excellence of many of them obtained for their author a more than local reputation. One of these, "On certain Butterfly Scales characteristic of Sex," read at Brighton in November, 1867, was subsequently published in the eighth volume of the 'Microscopical Journal.' In addition Mr. Wonfor contributed a great many articles on different branches of Zoology, not only to the 'Proceedings' of his own Society, but to 'Scientific Opinion,' 'Science Gossip,' and other periodicals. On the occasion of the visit of the British Association to Brighton, in 1872, Mr. Wonfor took a very active part in their proceedings, and acted as Secretary to one of the Committees. Although he never attained the position of a distinguished scientific specialist, few men ever possessed so large an amount of general information on scientific matters, or have been more ready to impart it for the benefit of others. Mr. Wonfor was appointed Curator of the Free Library and Museum in 1875, and was elected a Fellow of the Linnean Society in June, 1877, and a Member of the Entomological Society in February last.

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

Linnean Society of London.

November 7, 1878.—Professor G. J. Allman, F.R.S., President, in the chair.

At this the first meeting of the session, the following gentlemen were elected Fellows of the Society:—The Rev. W. W. Fowler, Repton, Burton-on-Trent; Wilfred Huddleston, Esq., 23, Cheyne Walk, S.W.; and Thomas Moss Shuttleworth, Esq., Howick, Preston, Lancashire.

Dr. F. Buchanan White read "Descriptions of new Hemiptera." The specimens on which his communication was founded were chiefly obtained by Prof. J. W. H. Trail during his explorations on the Amazon. Dr. White defined two new genera (*Helenus* and *Neovelia*), and gave the diagnosis, with remarks, of seventeen new species: these are *Paryphes pontifex*, *Fibrenus guttatus*, *Largus lentus*, *Ischorovemus inambitiosus*, *Pamera pagana*, *Lethacus lepidus*, *Helenus hesiformis*, *Acanthocheila abducta*, *Hydrometra metator*, *Velia vivida*, *V. virgata*, *Neovelia Trailii*, *Microvelia minuta*, *Hydrobates regulus*, *Limnogonus lotus*, *L. lubricus*, and *Pelocoris procurrens*.

Sir J. D. Hooker presented to the Society, in the name of a committee of gentlemen, a large oil painting of the Rev. M. A. Berkeley, the distinguished fungologist, painted by Mr. I. T. Peale.

Although the papers read at this meeting were chiefly on botanical subjects, some of these are of sufficient interest to zoologists to be mentioned here;—

Dr. Maxwell Masters read an extract from a letter of Dr. Beccari, describing a gigantic Aroid found by him in Sumatra. Its tuber is five feet round, and the blade of the petiole is said to cover an area of fifteen metres, or forty-five feet.

In a paper on the Euphorbias, Mr. George Bentham made some pertinent remarks on the subject of nomenclature. Regretting the increasing confusion in synonomy, he observed, "Besides the young liberal-minded botanists who scorn to submit to any rules but their own, there are others who differ materially in their interpretation of some of the laws, or who do not perceive that in following too strictly their letter instead of their spirit they are only adding needlessly to the general disorder. In the application as well as in the interpretation of these rules, they do not sufficiently bear in mind the general principles—first, that the object of the Linnean nomenclature is the ready identification of species, genera, or other groups

for study or reference, not the glorification of botanists; and, secondly, that changing an established name is very different from giving a name to a new plant. * * * The rule that long-established custom amounts to prescription, and may justify the maintenance of names which form exceptions to those laws which should be strictly adhered to in naming new plants, is unfortunately now frequently ignored, and the changes proposed in universally admitted names are producing in many instances the greatest confusion."

Another paper of a physiological cast was that of the Rev. G. Henslow, "On the Absorption of Rain and Dew by the green parts of Plants." It appears that earlier experimenters were fully persuaded that leaves could and did absorb dew and rain. Duchartre, in 1857, reversed this view. Mr. Henslow now maintains, from his own experiments, that absorption does take place soon after the sun has risen, and under other predisposing circumstances; thus the common notion of gardeners is right, and the late current teaching of science wrong.

"Notes on Cleistogamous Flowers, chiefly of *Viola*, *Oxalis*, and *Impatiens*," was the title of a paper read by Mr. Alfred W. Bennett.

Dr. Thomas Boycott exhibited a great blanket-like sheet of *Chara* (*Nitella*, sp. ?), got from a dried pond in St. Leonard's Forest, Sussex. To zoologists and microscopists the rare material entangled in this vegetable mat would be of the highest interest.

Specimens of growing India-rubber trees from West Africa were shown by Mr. Thomas Christy; and Dr. R. C. A. Prior brought forward a branch in blossom of *Colletia cruciatica*, grown out of doors in Somersetshire by the Rev. W. Sotheby.—J. Murie.

Zoological Society of London.

November 5, 1878.—A. Grote, Esq., Vice-President, in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie during the months of June, July, August, September and October, 1878, and called attention to some of the more remarkable accessions which had been received during that period.

A communication received from Mr. J. H. Gurney contained a memorandum from the late Mr. E. C. Buxton, stating that *Asturinula monogrammica*, observed on the Eastern Coast of Africa, had a song which was heard morning and evening.

An extract was read from a letter addressed to the Secretary by Dr. A. B. Meyer respecting a supposed new Bird of Paradise, obtained on the West Coast of New Guinea.

An extract was read from a letter addressed to the Marquis of Tweeddale by Mr. A. H. Everett, stating that the Anoa of Celebes, *Anoa depressicornis*, or an allied species, was found in the Island of Mindoro, Philippines.

Professor Newton exhibited and made remarks on a supposed hybrid between the Red Grouse and Ptarmigan, lately shot in Sutherland by Captain Houston.

A communication was read from Mr. R. Bowdler Sharpe, containing a description of a new species of *Indicator*, with remarks on other species of the genus. A second paper by Mr. Sharpe contained a note on *Pæoptera lugubris*.

A communication was read from Mr. G. B. Sowerby, Jun., wherein he gave the descriptions of ten new species of shells from various localities.

Mr. A. G. Butler read a paper in which he gave the description of a remarkable new spider, obtained in Madagascar by the Rev. W. D. Cowan, for which the name of *Cærostris avernalis* was proposed.

A communication was read from Lieut.-Colonel R. H. Beddome, containing the descriptions of six supposed new species of snakes of the genus *Silybura*, family *Uropeltidæ*, from the Peninsula of India.

A communication was read from Mr. Edgar A. Smith, containing the description of a collection of marine shells, made by Capt. L. W. Wilmer, in the Andaman Islands.

Mr. F. Moore communicated a list of the lepidopterous insects collected by Mr. Ossian Limborg in Upper Tenasserim, with descriptions of new species.

Mr. George French Angas gave the descriptions of six species of bivalve shells in the collection of Mr. Sylvanus Hanley, and a *Helix* from the Solomon Islands. Mr. Angas also read descriptions of ten species of marine shells from the Province of South Australia; and, in continuation of former papers on the same subject, read a list of additional species of Marine Mollusca to be included in the Fauna of the Province of South Australia, with notes on their habitats and local distribution.

Dr. G. E. Dobson read a note on *Myxopoda aurita*, a new form of Chiroptera from Madagascar, remarkable for possessing suctorial disks, as in *Thryroptera*. Dr. Dobson also gave descriptions of some new or rare species of bats, based on specimens in the Museum of Natural History of Paris. To the new species the following names were given:—*Pteropus Germaini*, from New Caledonia; *Cephalotes minor*, from New Guinea; *Emballonura raffrayana*, from Gibolo; and *Schizostoma brachyota*, from Cayenne.—P. L. Sclater, *Secretary*.

NOTICES OF NEW BOOKS.

Natural History, Sport and Travel. By Edward Lockwood, Bengal Civil Service, late Magistrate of Monghyr. Post 8vo, pp. 284. London: Allen & Co. 1878.

The title of this book, although conveying an accurate idea of the nature of its contents, does not sufficiently indicate its scope. After the word "Travel," the author should have added "in Bengal," or, to be still more precise, "in Monghyr," a district of Bengal embracing some 4000 square miles, and divided into two nearly equal portions by the Ganges. In this district Mr. Lockwood was for many years resident magistrate, and having a taste for Natural History he devoted much of his leisure time to the fauna and flora around him. The country explored by him is in some respects a remarkable one; the northern part consisting of a vast plain of rich alluvial soil, the southern portion being covered with extensive rice-beds and forests. As might be supposed, the wild animals which haunt the one are very different to those which frequent the other; and the same may be said of the vegetation with which the country north and south of the Ganges is clothed. In the country to the south are found Bears, Tigers, Baboons, squirrel-like Tupaias, or Tree Shrews, Peacocks, Jungle-fowl, and Grey Partridges. These do not occur in the northern part of this district, which according to Mr. Lockwood must be a very paradise for the wildfowl shooter. On one lake near Sakarpoor he computes that he saw no less than—Wild Geese, 5,000; Red-crested Pochard, 20,000; Pin-tailed Duck, 20,000; Pochard, 50,000; Teal, 20,000; Garganey, 20,000; Gadwall, 10,000; Shoveller and Ferruginous Duck, 10,000; Glossy Ibis, 10,000; Red-crowned Ibis, 1,000; Black-headed Ibis, 100; Curlew, 100; Purple Heron, 100; Common Heron, 200; Egrets, 10,000; Purple Coot, 2,000; Jacana, 5,000; Bald-headed Coot, 50,000; Godwit, 50,000; Stilt Plover, 5,000; Cormorant, 10,000; Indian Snake-bird (*Plotus*), 5,000; Crested Grebe, 100; Dabchick, 200; Osprey, 20; White-tailed Eagle, 20; Kite, 100; other birds of prey, 20.

The time most interesting to the naturalist on this lake is said to be at sunset, when the birds come in from all the country round to roost on the marsh myrtles. The air is then alive with birds. The different species are noticed in turn by the author, who gives

at the same time an account of the various attractive water-plants to be met with at this interesting spot.

Describing the food supplies of Monghyr, he especially notices the Mahwa-tree, *Bassia latifolia*, one of the most useful trees in the world. "It is a fountain producing food, wine, and oil. Food to thousands of poor people, who find the succulent flowers, both fresh and dried, wholesome food; wine, or rather spirit, distilled from the flowers, to the whole of the district; and oil pressed from the fruit, used for the adulteration of *ghi* in this district and in Calcutta." Of the vast amount of Mahwa collected, by far the greater part is eaten, and during the famine of 1873-74, it kept alive thousands who otherwise must have starved.

Among the plants cultivated for oil in Monghyr is Mustard, from which many thousand tons of oil are yearly manufactured for home consumption or exportation. Flax, or "Linseed," as it is called in India, ranks next in importance, and may be seen in almost every village; Castor-oil comes next, and then Sessamum, Poppy, Safflower (*Carthamus tinctorius*), and Starflower (*Verbesina sativa*). It is observable that, though common enough in the south, no poppies are to be seen north of the Ganges. Indigo usurps nearly 16,000 acres, and tobacco is cultivated to a very considerable extent.

Although the soil of Monghyr is said to have deteriorated since it was first cultivated, the number and variety of the crops which are successively raised is remarkable. In addition to the vast rice tracts with which, in the south, a great portion of the district is covered, and besides the vegetable products above named, may be seen cucumbers, egg-plants, potatoe, Indian corn, capsicums, cauliflowers, peas, wheat, and the edible grass, *Sorghum saccharatum*, the last-named growing to such a height as to completely hide a horseman when passing through it.

From the timber trees, of which an account is given (p. 249 *et seq.*), to the birds, reptiles, and insects which frequent them the transition is natural, and Mr. Lockwood has many interesting observations concerning them—so many, indeed, that it is difficult to make choice of any particular passage for quotation. His aim, as he informs us in his Preface, has been "to tell his story briefly, and in the lightest possible style." He has succeeded in writing a very entertaining volume, and one which contains more information on the Natural History of India than is to be found in many Anglo-Indian books of greater pretentions. It is to be

hoped that his taste for observing and his zeal in faithfully recording his observations may be emulated by others who—favourably situated like himself—have it in their power to add materially to our knowledge of the zoological and botanical wealth of our Indian Empire.

We regret that we cannot congratulate Mr. Lockwood on his illustrations, most of which are crude and unfinished, and we miss an Index, which would have added much to the utility of his book.

The History of Glanville's Wootton, in the County of Dorset; including its Zoology and Botany. By C. W. Dale. 8vo, pp. 392, with two photographs. London: Hatchards. 1870.

The history of Glanville's Wootton, as related by Mr. Dale, occupies barely six and twenty pages. From this circumstance one is led to infer that the account must either be very imperfect or it was hardly worth publication. Nor do the 366 pages which follow on the Zoology and Botany of the parish compensate for the earlier shortcomings of the author. Nearly three hundred pages are occupied with a systematic list of insects, of which only the scientific names are given, and these not always correctly, with no further comment or observation than is conveyed by the addition of the words "common," "abundant," or "very rare," as the case may be. So wearisome a repetition of names can scarcely prove attractive, we imagine, to any but the keenest insect collector. Whether entomologists will be content to accept Mr. Dale's new species (pp. 264, 290, 293, 304, 306, 308), founded as they appear to be on very inadequate descriptions, and having little but his new names to distinguish them, is more than doubtful.

The more important constituents of this local fauna—the Vertebrata—being treated in a very cursory and imperfect manner, the work can scarcely be said to have much utility for zoologists. The few scraps of interest which it contains may be noted in a few lines. The Marten-cat has been killed at Holnest (p. 27), Daubenton's Bat, or the "Little Black Bat," as it is locally termed, is abundant (p. 28). The Roe-deer is stated (p. 29) to be "rare, but more common in the Middlemarsh Woods. It used formerly to be hunted with Greyhounds." These, it is presumed, must be some of the descendants of the stock turned out, in 1800, by the Earl of Dorchester at Milton Abbey, or by his neighbour,

Mr. Drax. They used to be hunted by Mr. Pleydell, of Whatcombe, with dwarf fox-hounds, and harriers, but we never heard of greyhounds being employed for the purpose. Perhaps on this point Mr. Dale may be mistaken. It is to be regretted that he has not given us a little more information on the subject.

The Kite we are told (p. 31) was formerly common in the parish, and used to breed in the Middlemarsh Woods, but none have been seen for thirty years.

Amongst the Reptilia we do not find any notice of the Smooth Snake, *Coronella lævis*, which has been met with occasionally on the extensive heaths of South-West Hampshire and East Dorset.

Little else calls for remark. The *raison d'etre* of this book, if we may judge by its contents, seems to have been a filial and laudable desire on the part of the author, to place on record a list of the large series of British insects in his father's cabinet, that gentleman, who died in 1872, having been an enthusiastic collector. As a monument to his assiduity in that capacity, it no doubt will stand; but it can scarcely be said to add much to our knowledge of the subjects upon which it professes to treat.

A History of British Birds. By the late WILLIAM YARRELL, V.-P.L.S., F.Z.S. Fourth Edition. Revised by ALFRED NEWTON, M.A., F.R.S., Professor of Zoology and Comparative Anatomy in the University of Cambridge. Part XII. October, 1878. Van Voorst, Paternoster Row.

WE have heard it remarked on more than one occasion that British Ornithology is "worked out," and that, whatever may be said of exotic species, as regards the avifauna of Great Britain at least, nothing remains to be discovered or written. A more mistaken idea, however, could not well be conceived, and if any of our readers be disposed to share it, we recommend them to consult the pages of the fourth edition of Yarrell's 'British Birds,' now in course of publication.

A comparison of the material in the present issue with that contained in the third edition will, without any disparagement of the original work, serve, we think, to convince the most sceptical not only of the important additions which are being made to our knowledge on the subject, but also of the amount of work which still remains to be done for want of observers and well-ascertained

facts. On perusing the pages of this new edition, no reflective reader can fail to perceive both the amount of condensed information which it contains, and the many new lines of investigation which it suggests. We can conceive no happier treatment of the subject.

Since our last notice of the work ('Zoologist,' 1877, p. 35) two more parts have appeared, the last, recently issued, making the fourth part of the second volume now in the hands of subscribers. The species therein dealt with are the Rose-coloured Starling, Chough, Raven, Black and Grey Crows, Rook, Daw, and Pie.

In his treatment of the Carrion Crow and the Hooded or Grey Crow, we notice a departure from the usual line adopted by systematists, Prof. Newton considering that these birds "should be regarded as members of a single dimorphic species, and the inability to point out why this species should possess that admittedly exceptional quality is no more an argument against that view than is the inability to explain why a wholly black plumage should prevail in nearly all the species of *Corvus*, while in a few others the black should be varied by grey or white." We have not space here to review the evidence which is adduced in support of the proposed fusion of what have hitherto been usually regarded as two distinct species. Suffice it to say that Professor Newton, arriving at the conviction that "it is almost impossible for a scientific naturalist to retain the time-honoured belief that they are distinct species," unites them under the heading "Crow," and traces very instructively the geographical distribution of the two forms. His remarks on the "*Passeres*" and "*Picariæ*" (pp. 266—268) deserve attentive perusal.

The Popular Science Review. Edited by W. S. Dallas, F.L.S., Assistant Secretary of the Geological Society. 8vo, pp. 446. With illustrations. London: Hardwicke and Bogue. 1878.

We have received from the publishers of this quarterly journal the volume for 1878, addressed "To the Editor of 'The Zoologist,'" and presumably therefore intended for notice in these pages under the head of "Notices of New Books." Amongst the zoological papers which it contains we may especially refer to that by Mr. Henry Woodward on Armoured Fishes, and on *Volvox globator*, by Mr. A. W. Bennett. Prof. Martin Duncan's notes on the Ophiurans, or the Sand and Brittle Stars, and

Dr. Wallich's article on the *Radiolaria* contain an amount of interesting information which will amply repay perusal. If our readers will pardon an allusion to our own labours, we may add that the volume before us contains a long essay by the Editor of this journal on the extinct British Wolf. In this article, which occupies nearly fifty pages, the geological and historical evidence of the former existence of the Wolf in the British Islands is fully dealt with, and some curious particulars, extracted from State Papers, Public Records, Privy Council Books, and a variety of other sources, are furnished. "So far as can be now ascertained, it appears that the Wolf became extinct in England during the reign of Henry VII.; that it survived in Scotland until 1743; and that the last of these animals was killed in Ireland, according to Richardson, in 1770, or, according to Sir James Emerson Tennent, subsequently to 1766." For the evidence from which these conclusions are drawn, we must refer our readers to the article in question.

Transactions of the Norfolk and Norwich Naturalists' Society. Vol. II. Norwich: Fletcher and Son. 1878.

THE fourth part of the second volume of these excellent 'Transactions,' recently issued, deserves special notice, since it contains, amongst other things, a series of twenty-three letters, written between the years 1822 and 1841, by and to such well-known zoologists as Richard Lubbock, Hoy, Girdlestone, Selby, Yarrell, and Robert Hamond, and prefaced by short biographical notices of each. This series is communicated by Mrs. Richard Lubbock and Professor Newton, and will have much value in the eyes of naturalists, not only on account of the many facts thus placed on record, and well worth preserving, concerning the fauna and flora of Norfolk and Suffolk at the time when these letters were written, but also as affording an insight into the pursuits of some of the many earnest naturalists who flourished in the counties above named in the first half of the present century. We might extract many passages from this correspondence which are well worth quoting, but as the part of the 'Transactions' containing it may be had from the Secretary of the Society, or from the Publishers, for a couple of shillings, we recommend our readers to peruse it in its entirety.

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OF

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J. E. HARTING, F.L.S., F.Z.S.

MEMBER OF THE BRITISH ORNITHOLOGISTS' UNION.

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GEOLOGICAL SOCIETY'S QUARTERLY JOURNAL, edited by the Assistant-Secretary, from Feb. 1858 (Vol. XIV. p. 1) to Feb. 1876 (Vol. XXXII. p. 1); numerous engravings. £5 5s. [1858—76

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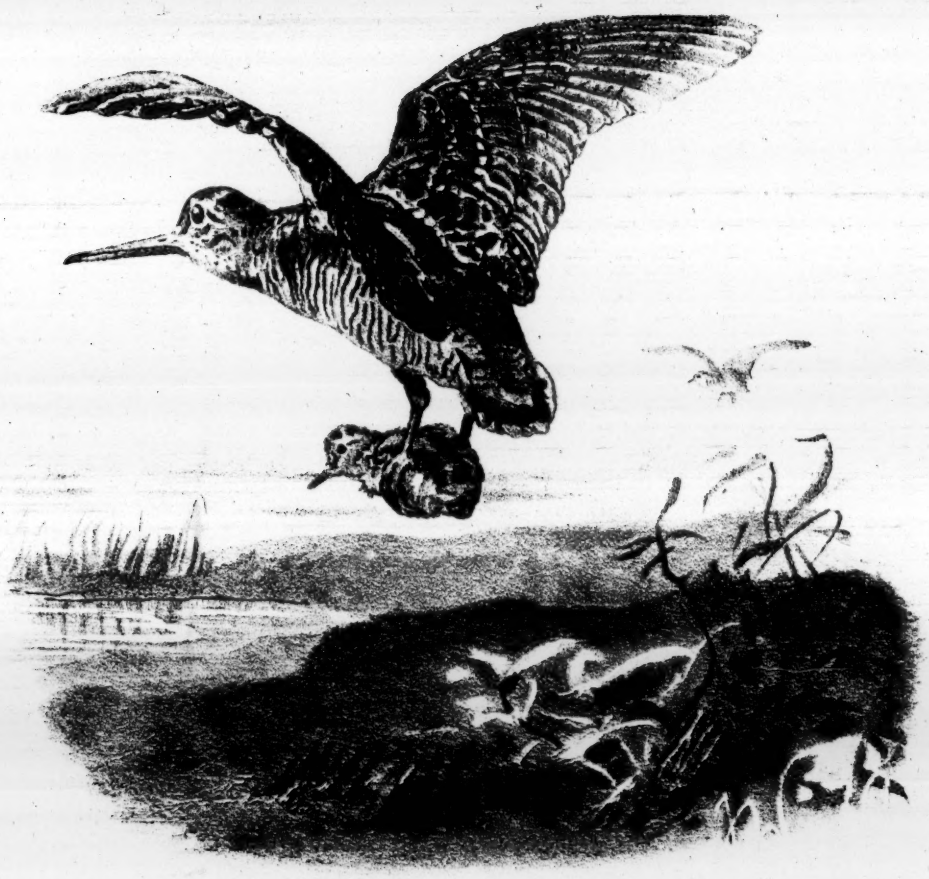

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